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ALAMEDA POINT
SSIC NO. 5090.3

Department of Toxic Substances Control

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

September 6, 2001

Mr. Michael McClelland
BRAC Environmental Coordinator
United States Navy
Engineering Field Detachment Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132

SUBJECT: ALAMEDA POINT (NAVAL AIR STATION ALAMEDA) FORMER SKEET RANGE DRAFT SAMPLING PLAN FOR ECOLOGICAL RISK ASSESSMENT

Dear Mr. McClelland: Mike

Please find attached DTSC comments on the subject Sampling Plan. These comments were prepared by our Human And Ecological Risk Division. IF you have any questions, please feel free to coll me at (510) 540-3772.

Sincerely,

Daniel E. Murphy, P.E., Chief
Berkeley Unit
Office of Military Facilities

Winston H. Hickox
Secretary for
Environmental
Protection

Department of Toxic Substances Control

Edwin F. Lowry, Director
1011 "I" Street, P.O. Box 806
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MEMORANDUM

TO: Daniel Murphy
Office of Military Facilities - Berkeley
700 Heinz, Building F, 2nd Floor
Berkeley, CA 94710

FROM: James M. Polisini, Ph.D.
Staff Toxicologist
Human and Ecological Risk Division (HERD)

DATE: August 15, 2001

SUBJECT: ALAMEDA POINT (NAVAL AIR STATION ALAMEDA) FORMER SKEET RANGE DRAFT SAMPLING PLAN FOR ECOLOGICAL RISK ASSESSMENT
[PCA 18040 SITE 201210-00]

Background

We have reviewed the document titled Draft Skeet Range (IR Site 29) Evaluation Work Plan, Alameda Point, California, dated July 10, 2001. This draft work plant was prepared by Batelle, Inc. of Duxbury, MA, Entrix, Inc. of Walnut Creek CA and Neptune and Company of Los Alamos, NM. HERD also participated in a meeting regarding this work plan on May 23, 2001.

Naval Air Station (NAS) Alameda occupies the western third of Alameda Island and has been a military installation since 1930. NAS Alameda occupies 2842 acres of land, water and airspace easement, which includes 1734 acres of land. The majority of the land at NAS Alameda was created by filling existing tidelands with dredged material from San Francisco Bay and the Oakland Inner Harbor.

General Comments

The proposed work plan is in general agreement with comments and discussions previously supplied by HERD. The agreement of the natural resource trustees is critical prior to initiation of the outlined work.

Specific Comments

1. Please report two measures of lead concentration in sediment. Report the number of shot per equivalent sediment sample weight for each sample along with contours of the number of shot per equivalent weight. Also report the lead concentration (i.e., mg/kg) of each sediment sample in the report.

2. HERD defers to the natural resource trustees, the California Department of Fish and Game (DFG), the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) Coastal Resources Coordinator, regarding the number of lead shot per sediment weight (i.e., number of shot per kg sediment) and the sediment depth (Section 2.2.2, page 9) which would be of concern for diving ducks.

3. Please identify the locations of the 'other skeet ranges' which are referenced (Section 3.2.1.3, page 14).

4. Please provide a citation for Equation 1 and Equation 2 for determining the likelihood that a bird will ingest lead shot of a certain dimension (Section 3.2.2.1, page 17).

5. Please provide the complete results of the literature search for the 'most relevant studies' to regulatory agencies and natural resource trustees (Section 3.2.2.2, page 18) prior to completion of the ecological risk assessment. The submitted search results should include all references obtained, as well as those studies considered 'most relevant'.

6. The fact that the state of Oregon has determined, through legislation, that 'acceptable risk' is a 10 percent chance that 20 percent or more of the population will receive a dose greater than the Toxicity Reference Value (TRV) is not applicable to California (Section 3.2.2.3, page 18). HERD's review of the Oregon document referenced indicates that the TRV mandated is not a No Observable Adverse Effect Level (NOAEL), but a dose toxic to 50 percent of the organisms tested (LD50). Use of an LD50 as the TRV would be unacceptable to HERD.

7. HERD agrees that 'Acceptable risk levels for populations of birds in San Francisco Bay can be agreed upon with regulatory agencies as part of RI development' (Section 3.2.2.3, page 18).

8. Please include a summary statement regarding the human health risk and hazard developed in the Western Bayside evaluation as part of any report on the skeet range (Section 3.3, page 19). This can be a simple text statement of the risk and/or hazard estimated in the Western Bayside investigation.

9. Please provide the citation for the assumption that sediment accretion rates are 1 centimeter (cm) per year (Table 3-2, page 20)

10. The Data Quality Objectives table (Table 3-2, page 20) should be amended in Step 4 to indicate that lead shot buried below 10 cm is not considered bioavailable <u>for the avian species being evaluated</u>.

11. Please explain why the statement that the upper 5 cm of sediment will be collected at each station (Appendix B, Section B.4.3.1, page B-8) when the Data Quality Objectives table (Table 3-2, page 20), indicates that the proposed exposure depth for the avian species being considered is 10 cm. The depth intervals for sampling should be identical in Appendix B and the Data Quality Objectives table.

12. There appears to be an error in the table regarding sample handling (Attachment 2) for Sediment/Soil or tissue (SOP No. 6-010-11, page 12 of 19). There is no physical way the PAH/SVOA sample can be frozen at temperatures equal to 20 ° C '≤ 20 ° C'. Perhaps less than or equal to -20° C was meant for this table. Please correct this typographic error.

Conclusions

HERD agrees with the majority of data collection and evaluation steps presented in this work plan for the Skeet Range on the Western Bayside of NAS Alameda. While the proposals in the work plan seem reasonable, HERD defers to the natural resource trustees, the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration Coastal Resources Coordinator regarding the selection of representative species, the size of lead shot assessed and depth of sediment sampling.

A simple statement of the human health risk and hazard estimates from the assessment of the Western Bayside should be included in any report generated regarding the Skeet Range.

Reviewed by: Brian K. Davis, Ph.D. Brian K. Davis
Staff Toxicologist, HERD

cc: Michael J. Wade, Ph.D., DABT, Senior Toxicologist, OMF Liaison, HERD

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